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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/850,094	05/08/2001	Yoko Fujiwara	011350-269	9577

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EXAMINER	
MARIAM, DANIEL G	

ART UNIT	PAPER NUMBER
2621	4

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/850,094	FUJIWARA, YOKO
	Examiner	Art Unit
	DANIEL G MARIAM	2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-24 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,7-12,15-20,23 and 24* is/are rejected.

7)☒ Claim(s) *5,6,13,14,21 and 22* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 May 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 3.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 5 is objected to because of the following informalities: claim 5 recites the limitation "said independent line line by line" recited in line 8 is grammatically incorrect. Likewise, a similar limitation also occurs in claims 13 and 21. Appropriate correction is required.

Since claims 6, 14, and 22 depend on claims 5, 13, and 21 respectively, they are also objected to for the same reason set forth above for claims 5, 13, and 21.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4, 7-12, 15-20, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashizume, et al. (5,513,278) in view of Hirayama, et al. (5,509,092).

With regard to claim 1, Hashizume, et al., an image recognition apparatus (See for example, Fig. 4) comprising: an input unit for inputting image data (See item 10, in Fig. 4); and a processor for executing a process comprising the steps of: 1) detecting a character region, i.e., area, where character images exist from image data input via said input unit (See item 3, in Fig. 4); 2) recognizing character images in said character region to obtain character code data (See item 2, in Fig. 4); 3) converting said character code data into output character images (See item

5, in Fig. 4); 4) judging whether said output character images fit within said detected character region when said output character images are outputted (See col. 4, lines 52-67); and 5) enlarging said character region within a specified range when said output character images do not fit into said character region and judging whether said output character images fit within the enlarged region (which reads on col. 5, lines 7-24). While Hashizume, et al. does automatically outputs the recognized character to the font determiner which determines the font for the recognized character based on at least the result outputted from the area judgment unit, Hashizume, et al. does not explicitly call for enlarging the character region and judging whether the output character images fit within the enlarged region. However, Hirayama, et al. (item S3, in Fig. 4; and col. 5, lines 29-40) teaches this feature.

Hashizume, et al. and Hirayama, et al are combinable because they are from the same field of endeavor, i.e., character recognition (See for example, the Abstract). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Hirayama, et al. with Hashizume, et al. The motivation for doing so would at least enhance the system of Hashizume, et al, because it provides the capability to make adjustment, such as enlarging the character image area, if the outputted character image is not properly located within the determined character area, and thereby improving the readability of the recognized character image according to the font. It would have been obvious to combine Hirayama, et al with Hashizume, et al. to obtain the invention as specified in claim 1.

With regard to claim 2, an image recognition apparatus as claimed in claim 1 wherein, when said processor judges that said output character images do not fit within said enlarged

region, said output character images' size is reduced for outputting (See for example, col. 4, lines 33-40; and Fig. 11 of Hirayama, et al).

With regard to claim 3, an image recognition apparatus as claimed in claim 1 wherein, when said processor judges that said output character images fit within said character region or said enlarged region, said output character images' size is not changed for outputting (See for example col. 5, lines 1-16 of Hashizume, et al; and col. 4, lines 33-40 of Hirayama, et al).

With regard to claim 4, an image recognition apparatus as claimed in claim 1 wherein, when said processor judges that said output character images do not fit within said character region, said character region is enlarged within a range that does not cause any overlapping with other regions that contain images other than character images (See for example, Figs. 11 of Hirayama, et al).

With regard to claim 7, an image recognition apparatus as claimed in claim 1 wherein, said image data includes a background, i.e., blank, region with specified color or density as background for said character images, and said character region is enlarged within the range of said background region when said processor judges that said output character images do not fit into said character region (See for example, col. 4, lines 52-67 of Hashizume, et al).

With regard to claim 8, an image recognition apparatus as claimed in claim 7 wherein, said processor further judges whether multiple lines consisting of character images in said character region include an independent line that is independent from other lines and, when it judges that the multiple lines include the independent line, detects layout styles of said

independent line in said background region, and disposes output character images based on said detected layout styles (See for example, item 23, in Fig. 12 of Hirayama, et al).

Claims 9, 10, 11, 12, 15, and 16 are rejected the same as claims 1, 2, 3, 4, 7, and 8 respectively except claims 9, 10, 11, 12, 15, and 16 are method claims. Thus, arguments similar to those presented above for claims 1, 2, 3, 4, 7, and 8 are equally applicable to claims 9, 10, 11, 12, 15, and 16.

Claims 17, 18, 19, 20, 23, and 24 are rejected the same as claims 9, 10, 11, 12, 15, and 16 respectively. Thus, arguments analogous to those presented above for claims 9, 10, 11, 12, 15, and 16 are equally applicable to claims 17, 18, 19, 20, 23, and 24.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Numbers: US Patent Numbers: 4953225, 5077805, 5123062, 5613016, 5664027, 5719969, 6282314, and 6289121.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL G MARIAM whose telephone number is 703-305-4010. The examiner can normally be reached on M-F (7:00-4:30) FIRST FRIDAY OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LEO BOUDREAU can be reached on 703-305-4607. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DANIEL MARIAM
PRIMARY EXAMINER
April 27, 2004